

REMARKS

Claims 1-23 are pending in this application.

In view of the following remarks, Applicants respectfully request the Examiner to reconsider and withdraw all outstanding grounds of rejection. Applicants respectfully request allowance of the application.

In paragraph 3 of the Office Action, the title of the invention has been objected to as not being descriptive. Applicants traverse this objection. The present title of the application is "State Activated One Shot With Extended Pulse Timing For Hot-Swap Applications." Applicants respectfully submit that the title of the invention is sufficiently descriptive to clearly indicate the invention to which the claims are directed. Applicants respectfully request the withdrawal of this objection.

In paragraphs 4 to 7 of the Office Action, claims 12, 14 and 21 stand rejected under the judicially created doctrine of obviousness-type double patenting over the claims of U.S. Patent No. 6,625,681. Applicants file herewith a terminal disclaimer in compliance with 37 C.F.R. § 1.321 to overcome the rejection based on the non-statutory double patenting rejection with respect to claims 12, 14 and 21. Applicants submit that this rejection of claims 12, 14 and 21 has been overcome.

The Office Action rejects under 35 U.S.C. 102(b) claims 1-5, 14-15, and 17-23 as being anticipated by Busby, U.S. Patent No. 4,245,270 (hereinafter "*Busby*"). The Office Action rejects under 35 U.S.C. 103(a) claims 7-13 and 16 as being unpatentable over *Busby* in view of Nakaoka, U.S. Patent No. 4,886,984 (hereinafter "*Nakaoka*").

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 Fed. Cir. 1987).

Applicants submit that the applied references do not expressly or inherently describe each and every element of the claimed invention.

Applicants respectfully submit that *Busby* does not disclose or suggest, at least, "a time extender circuit connected to said logic circuit, for extending an output signal of said logic circuit for a period of time after said circuit board is completely inserted and removed," as recited, among other features, in independent claim 1.

Busby relates to a circuit card with a soft power switch. With reference to Figure 1, *Busby* discloses that as a circuit card 10 is inserted, a pin P2 makes connection with receptacle J2, grounding input terminal 27 of gate G3. As the circuit card 10 is inserted further still, pin P3 connects with receptacle J3, directly connecting the voltage of power supply 14 to circuit load 16. For insertion of a card, *Busby* states that it is preferable for transistor Q1 to be switched substantially completely on by the time pin P3 connects. The time elapsed between the connections of pin P1 and pin P3 is determined by the difference in the extensions of the two pins and the speed at which the circuit card is inserted. See, col. 3, lines 48-66. For removal of the card, *Busby* states when pins P1 and P5 disconnect, the circuit card 10 is totally disconnected from the system 12. Preferably, transistor Q1 will be substantially completely off by the time pins P1 and P5 disconnect, so that no small power transients are generated. See, col. 5, lines 9-13.

However, *Busby* does not disclose or suggest “a time extender circuit connected to said logic circuit, for extending an output signal of said logic circuit for a period of time after said circuit board is completely inserted and removed,” as claimed (emphasis added). As seen from the above, *Busby* does not extend an output signal of a logic circuit for a period of time after the circuit board is completely inserted and removed.

Therefore, Applicants respectfully submit that claim 1 is in condition for allowance over the applied art.

With respect to dependent claim 6, Applicants submit that *Busby* does not disclose or suggest “wherein said time extender circuit further comprises: a resistor connected between ground and said logic circuit; and a capacitor connected between a voltage and said logic circuit,” as recited in dependent claim 6. The Office Action does not address dependent claim 6. Therefore, Applicants respectfully submit that dependent claim 6 is patentable over the applied art and is in condition for allowance for at least the reasons stated above with respect to claim 1, from which it depends, and for the additional features recited therein.

With respect to dependent claim 10, Applicants respectfully submit that *Busby* does not disclose or suggest “wherein said at least one inverter is a Schmitt trigger inverter,” as recited in dependent claim 10. The Office Action at paragraph 11 states that neither *Busby* nor *Nakaoka* discloses a Schmitt trigger inverter. However, the Office Action states, “one skilled in the art would have understood that they can choose to have different type of inverter to fulfill their need.” Applicants respectfully disagree and request that a reference disclosing a “Schmitt trigger inverter” and providing motivation to combine the Schmitt

trigger inverter, as claimed, be cited or the rejection with respect to claim 10 be withdrawn. Applicants respectfully submit that dependent claim 10 is patentable over the applied art and is in condition for allowance for at least the reasons stated above with respect to claim 1, form which it depends, and for the additional features recited therein.

With respect to independent claim 12, Applicants respectfully submit that the applied art does not disclose or suggest “at least one Schmitt trigger inverter having an input connected to said output of said at least one other transistor; and a time extender circuit connected to said at least one output of said at least one other transistor,” as recited, among other features, in independent claim 12. As described above, *Busby* does not disclose or suggest at least this feature of independent claim 12. Therefore, Applicants respectfully submit that independent claim 12 is in condition for allowance over the applied art.

With respect to independent claim 14, Applicants respectfully submit that *Busby* does not disclose or suggest “extending said output signal for a period of time after said circuit board is completely inserted and removed,” as recited, among other features, in independent claim 14. As described above, *Busby* does not disclose or suggest at least this feature of independent claim 14. Therefore, Applicants respectfully submit that independent claim 14 is in condition for allowance over the applied art.

Independent claim 21 recites, among other features, “performing a logic operation using one of said complementary control signals and an input signal to produce an output; using said output from said logic operation to source current; sinking current using said input signal.” Applicants respectfully submit that *Busby* does not disclose or suggest at least these features of the claimed invention. The Office Action at page 7 states that *Busby* teaches “sinking current using said output signal” (emphasis added). However, claim 21 recites, among other features “sinking current using said input signal” (emphasis added). Therefore, Applicants respectfully submit that independent claim 21 is in condition for allowance over the applied art.

Applicants respectfully submit that *Nakaoka* fails to overcome the deficiencies of *Busby* as described above. Therefore, the claims are in condition for allowance over *Busby* and/or *Nakaoka*.

Claims 2-11 depend from independent claim 1, claim 13 depends from independent claim 12, claims 15-20 depend from independent claim 14, and claims 22-23 depend from independent claim 21. Therefore, claims 2-11, 13, 15-20 and 22-23 are allowable for the

reasons stated above with respect to the claims from which they depend, and for the additional features recited therein.

CONCLUSION

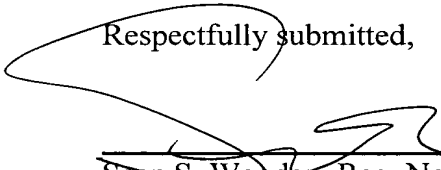
In view of the above remarks, Applicants believe that the rejection against this application has been fully addressed and that the application is now in condition for allowance. Therefore, withdrawal of the rejection and a notice of allowance for the application are respectfully requested.

It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to deposit account no. 50-1078.

If the Examiner believes that a personal or telephonic interview would be of value in expediting the prosecution of this application, the Examiner is hereby invited to telephone the undersigned counsel to arrange for such a conference.

Respectfully submitted,

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